CALIFORNIA DEPARTMENT OF FOOD & AGRICULTURE

West Nile Virus Vaccine for Horses
California Department of Food and Agriculture
2004 Recommendations

The United States Department of Agriculture (USDA) licensed a West Nile Virus (WNV) vaccine manufactured by Fort Dodge Laboratories in February 2003. This product is still available, and indications from the manufacturer are that it will soon be available as "combined product" vaccine along with various combinations of Eastern Equine Encephalitis (EEE), Western Equine Encephalitis (WEE), Venezuelan Equine Encephalitis (VEE), and tetanus. This product was found to be safe and effective by USDA as an aide in the prevention of WNV in horses.

For the original product, the manufacturer recommends two doses, three weeks apart, plus annual revaccinations. Effectiveness has been demonstrated three weeks after the administration of the second of the two doses. Therefore, the initial two dosages should be administered at least three weeks prior to mosquito season. There is also now evidence that 5-month booster vaccinations are likely to enhance protection. It does appear that one dose does not provide protective immunity because several horses in endemic areas became infected with WNV despite receiving a single dose of the vaccine. Recommendations for the "combined product" vaccines will be available from the veterinary practitioner as the products become available.

For 2004, Merial has introduced a promising new "recombinant DNA vector virus vaccine." The manufacturer indicates that this product will provide quicker and longer lasting immunity, and after the initial first two injections, require a single annual booster. Updated information and recommendations are available from the veterinary practitioner.

Decisions by horse owners and their veterinary practitioner to vaccinate for WNV should be based on the risk of horses being exposed to mosquitoes. It is also very important to realize that effective WNV prevention measures also include eliminating, or drastically minimizing the mosquito exposure to horses by elimination of mosquitoes and their breeding grounds in standing stagnant water. Approved mosquito repellants containing DEET should be applied if exposure is unavoidable.